DOCUMENT RESUME

ED 061 683 EC 041 771

AUTHOR	Bodley, Dean; And Others
TITLE	Physical Education Guide for the Exceptional Child.
INSTITUTION	Ann Arbor Public Schools, Mich.
PUB DATE	Nov 70
NOTE	69p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Exceptional Child Education; Guidelines; *Handicapped Children; *Physical Activities; *Physical Education; Regular Class Placement; *Teaching Guides

ABSTRACT

The guide is intended to assist physical education teachers in dealing with atypical children in their classes. Adaptive physical education is seen as integration of handicapped children into regular physical education classes by understanding their special needs and how to deal with them. Outlined are policies and procedures of the school system, as well as general educational objectives for the handicapped child. Focused upon are 18 specific health-related, sensory, orthopedic, mental, and neurological disabilities. Brief discussion of each disability covers definition, causes, symptoms, related problems, and general teaching suggestions. The following section lists recommended physical activities for 15 major categories and additional subcategories of handicaps. Selection criteria for measurement and other evaluative procedures are listed. (KW)

ED 061683

PHYSICAL EDUCATION GUIDE FOR THE EXCEPTIONAL CHILD

EC 041 711

ANN ARBOR PUBLIC SCHOOLS
Ann Arbor, Michigan

THE EXCEPTIONAL CHILD

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Physical Education Department

Ann Arbor Public Schools
Ann Arbor, Michigan
November, 1970

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ACKNOWLEDGEMENTS

Physical educators who developed the guide were:

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Consultants to the staff were:

Dr. Ruth Harris and Dr. Dennis Rigan, University of Michigan; Dr. Hazel Turner, Miss Elizabeth Williams, Mrs. Jane O'Conner and Mrs. Ellen Johnson, Ann Arbor pupil personnel services; Miss Jean Henne, Director of Elementary Education; Miss Florence Gasdick, elementary principal and Mrs. Kauder, elementary physical education teacher.

FOREWORD

Guide for the Exceptional Child was developed in the summer of 1970 by the physical education department of the Ann Arbor Public Schools to assist physical educators in dealing with atypical children in their classes. The guide, of course, is just a small part of the total process which must be used in helping children who are exceptional. Constant involvement of all the people concerned with a particular child and his progress is a must.

E. Harney
Physical Education
Coordinator
10/20/70

AIMS OF THE GUIDE FOR THE EXCEPTIONAL CHILD IN THE ANN ARBOR PUBLIC SCHOOLS

AIMS

"The handicapped child has a right to grow up in a world which does not set him apart, which looks at him not with scorn or pity or ridicule but which welcomes him, exactly as it welcomes every child, which offers him identical privileges and identical responsibilities."

White House Conference on Child Health and Protection, Committee on Physically and Mentally Handicapped, The Handicapped Child (New York: Appleton, 1933), p. 3.

It is important to understand just what Adaptive Physical Education means in the Ann Arbor Public Schools. It is perhaps more important to understand what it does not mean.

First, the negative. Adaptive Physical Education in Ann Arbor is not physical therapy or medical practice. It is not, as presently conceived, special separate classes for exceptional children.

We see Adaptive Physical Education as the integration of handicapped young people into regular physical education classes by recognizing their special needs and understanding how to deal with them. This may involve extra help--student teachers, student assistants, paraprofessionals--working under the guidance and direction of the instructor. Skillful human relations techniques are a must.

Our primary aim is to eliminate the term "medical excuse" from the English language. This means convincing the students, administrators, pupil personnel workers, families, and family physicians that today physical education is taught by thoughtful, sensitive people who can provide exceptional youngsters with meaningful experiences--allowing for differences in their capacities, performance levels, and capabilities.

It is our aim to physically educate every youngster who could in any way benefit from the offering. Children with physical and/or mental (emotional) problems--both temporary and permanent--should have a school experience that is as similar to that of their classmates as possible. Even extreme conditions, such as total blindness or confinement to a wheel chair, should not prevent a student from deriving pleasure and progress out of physical education. We see the course as being especially beneficial to the convalescent (post-surgery, post-illness, post-accident or athletic injury), who is often excused from gym much too long when he could be making great strides in a modified physical education program.

It is obviously necessary for the teacher to maintain unusually close contact with the exceptional child's family and others who are working with the child in an adaptive physical education program. It should be re-emphasized that our instructors are not therapists or specialists, and that they work strictly according to the guidelines spelled out by the experts on the case.

Teachers will be continually receiving in-service training as well as doing independent reading and research in order to increase their effectiveness in teaching adaptive physical education. University level courses are available and highly recommended. A bibliography of appropriate references is included herein. It is also hoped that a close working relationship with all personnel who are working with a particular child, as well as the personal physicians of our students will be mutually fruitful.

POLICIES AND PROCEDURES FOR PHYSICAL EDUCATION
for the
EXCEPTIONAL CHILD

I. Promotion and Public Relations

A. Explanatory note to local physicians and specialists who deal with exceptional children, attached to Health History and Physical Examination Form.

B. Explanatory note to all parents (either separate letter or section of letter to parents from school administrator regarding registration, scheduling, etc.)

C. Newspaper publicity.

D. Inform faculty (especially counselors, social workers, nurses and homeroom teachers) who aid students in working out their programs.

E. Special detailed information and constant feedback from the school nurse and special class teachers who are generally the special confident of parents and who may be the key to success or failure of the adaptive program.

F. Inclusion in PTO newsletter and/or portion of meeting.

II. Identification and Selection of Students

A. Health History and Physical Examination form and an explanatory note on physical education for the Exceptional Child, and sample letter follow.)

B. Consult with school nurse re. students currently on MX and identify those who would benefit from the program.

C. Pursue referrals resulting from observations by physical education teachers, homeroom teachers, classroom teachers, counselors, social workers, etc.

III. Procedures

A. Physical education teacher, in conference period with nurse, study health records of each adaptive student, including doctor's recommendations, and those from pupil personnel specialists.

B. Contact doctor through specialists and/or pupil personnel for further direction.

C. Outline a program of appropriate activities for the student, using doctors' and other specialists suggestions, plus your own knowledge of how to handle this condition.

D. Hold conference with student (and parent if convenient) explaining the program and how it is to be carried out.

E. Assign student teacher or other assistant to support adaptive student as he pursues the projected program.

F. Integrate the adaptive student into regular class activities as much as possible, keeping all the students informed so as to insure their cooperation.

G. Contact home and/or specialists working with the child if the situation so warrants.

H. Report progress on attached evaluation instrument.

(Note to doctor--to be attached to Health History and Physical Examination form)

Dear Doctor:

The Ann Arbor Public Schools are pleased to announce the offering of Adaptive Physical Education at all grade levels. We feel that with your direction and support, we can offer a meaningful physical education experience to any student able to attend public school regardless of handicap. We also feel exemptions from gym for convalescent students can be replaced with a doctor's recommendation that the student be given a modified physical education course until recovery from injury or illness is complete.

Your cooperation in helping us to identify candidates for the adaptive program and in suggesting appropriate activities and exercises is most appreciated. Our instructors are available to consult with you on specific cases if you so indicate on the attached form.

Sincerely,

(Miss) Elise J. Harney
Coordinator of Physical Education
Ann Arbor Public Schools

(To be filled in by Physician)

NAME _____

DOCTOR'S RECOMMENDATION FOLLOWING PHYSICAL EXAMINATION

Dear Physician:

A health appraisal is most important for every student's general welfare and for the school to have an understanding of individual needs. The Ann Arbor Public Schools require an examination on entrance to kindergarten, seventh and tenth grades, and those new to the Ann Arbor School System. The school can do its best if this form is completed and returned with your recommendations following a thorough examination.

1. Is there any physical defect which would limit participation in classroom activities?

	Yes _____	No _____
Gym, including swimming?	Yes _____	No _____
Competitive athletics?	Yes _____	No _____

If yes, what do you recommend? _____

2. All children enrolling in any public, private, parochial or denominational school in Michigan for the first time shall submit either a statement signed by a physician that they have been immunized or protected against small pox, diphtheria, tetanus, pertussis, rubella, measles and poliomyelitis and tuberculin tested to determine the presence of infection from tuberculosis; a statement signed by a parent or guardian to the effect that the child has not been immunized and tuberculin tested because of religious convictions or other objection to immunization; or a request signed by a parent or guardian that the local health department give the needed protective injections and diagnostic test.

In addition, the parent or guardian of each enrolling child shall submit a statement (1) signed by a district, county, or city health department director stating that the child has passed the department of public health preschool vision screening test, or (2) signed by a licensed medical or osteopathic physician or a licensed optometrist indicating that the child has had his eyes examined during the preschool years after age 3 and prior to initial entrance. Neither vision test enumerated in (1) or (2) above is required if there is a statement signed by a parent or guardian to the effect that the child cannot be sumitted to such test because of religious convictions. The Michigan department of public health shall promulgate rules for the implementation of this section.

Child is adequately immunized _____
Parents refuse immunization _____

Child will be immunized by me _____
Parents request immunization by the Health Department _____

3. (a) Record of Immunization

	Primary (date)	Last Booster (date)
Whooping cough		
Diphtheria		
Tetanus		
Polio		
Smallpox		
Measles Rubella		

(b) Has the child been tested for the presence of Tuberculosis by:

	Date	Results
1. Tuberculin test		
2. X-Ray of chest		

4. Is there any defect of vision or hearing which the school could help compensate by proper seating or other action?
Yes _____ No _____

If yes, what do you recommend? _____

Vision Results _____

5. Is this student subject to any condition which may make for a classroom emergency such as epilepsy, fainting, diabetes, allergies?
Yes _____ No _____

If yes, what do you recommend? _____

6. Is there any mental, emotional or physical condition for which the child should remain under your periodic observations?
Yes _____ No _____

If so, explain. _____

7. Physician's recommendation to school: _____

_____

_____

I would like the ( ) nurse, ( ) physical education teacher, ( ) teacher, ( ) social worker, ( ) speech therapist, ( ) principal, to contact me regarding this child.

Date of examination: _____

_____
Physician's Signature

Office Address _____

Office Telephone _____

ANN ARBOR PUBLIC SCHOOLS
HEALTH HISTORY AND PHYSICAL EXAMINATION

DATE _____

NAME _____ BIRTHDATE _____ SEX _____

ADDRESS _____ GRADE _____

SCHOOL _____ PHONE _____

FATHER (and/or Guardian) _____ AGE _____

MOTHER (and/or Guardian) _____ AGE _____

NUMBER OF BROTHERS _____ NUMBER OF SISTERS _____

FAMILY PHYSICIAN _____ CLINIC _____ DENTIST _____

Health History

A. Please circle the appropriate numbers if your child has had any of the following illnesses, or recent symptoms, as the case may be:

1. Measles
2. Mumps
3. Chicken Pox
4. German Measles
5. Scarlet Fever
6. Diphtheria
7. Smallpox
8. Typhoid Fever
9. Polio
10. Frequent colds
11. Tonsillitis
12. Persistent cough
13. Bronchitis
14. Pneumonia
15. Pleurisy
16. Shortness of breath
17. Blurred vision
18. Earaches
19. Mastoiditis
20. Hard of hearing
21. Ringing of ears
22. Dizziness
23. Headaches
24. Poor appetite
25. Nausea (frequent)
26. Vomiting spells
27. Fainting spells
28. Rheumatic Fever
29. Heart Disease
30. Chorea
31. Palpitation (fast heart)
32. Nosebleed) (frequent)
33. Bone & joint disease
34. Growing pains
35. Persistent pain (anywhere)
36. Kidney disease
37. Frequent urination
38. Abdominal pain
39. Hernia
40. Chronic constipation
41. Appendicitis
42. Epilepsy
43. Convulsions
44. Hay Fever
45. Asthma
46. Eczema
47. Allergies
48. Speech difficulty

Serious Injuries

B. (Indicate nature of and age when received)

1. _____

2. _____

3. _____

C. Please indicate below any health problems which you feel the school nurse, physical education teacher, speech therapist, social worker or principal should be aware of:

_____

_____

(Physician — over please)

_____
Signature of Parent (and/or Guardian)

A GUIDE FOR THE EXCEPTIONAL CHILD

OBJECTIVES

"If the great society is to mean anything, it must mean something for the quality of our lives. And health, as all of us except the very young have had occasion to know, has a great deal to do with the quality of our lives. It is both an end and a means in the quest for quality. It is desirable for its own sake, of course, but it is also fundamental if people are to live creatively and constructively. Health frees the individual to live up to his potential."

by John W. Gardner

Darwin's theory of the survival of the fittest is usually taught in biology classes. But most students experience it first hand in physical education. Like nature's annihilation of the clumsy dinosaur, physical education classes often strangle the spirit of the exceptional child.

These objectives are designed to provide an area of success and accomplishment for the exceptional child.

OBJECTIVES:

1. To correct faulty body mechanics for the purposes of giving the vital organs better opportunities to perform their functions.

2. To build up positive physical fitness by improving muscle tone and by developing functional harmony and poise.

3. To correct and develop habits of and attitudes toward health and physical activity.

4. To improve and develop habits of individually correct body mechanics in motor activities.

5. To accomplish needed therapy or correction for conditions which can be improved or removed.

6. To aid in the adjustment and/or the resocialization of the individual when the disability is permanent.

7. To protect the condition from aggravation by acquainting the student with his limitations and capacities and arranging a program within his physiological work capacity of exercise tolerance.

8. To provide students with an opportunity for the development of organic power within the limits of the exception.

9. To provide students with an opportunity to develop skills in recreational sports and games within the limits of the exception.

10. To contribute to the exceptional child's security through improved function and increased ability to meet the physical demands of daily living.

ADDITIONAL DEVELOPMENTAL OBJECTIVES:

Organic -

Muscle strength
Muscle endurance
Cardiovascular endurance
Flexibility

Neuromuscular -

Locomotor skills
Non-locomotor skills
Game-type fundamental skills
Motor factors
Sport skills
Recreational skills

Interpretative -

Exploration
Discovery
Understanding
Value judgment
Solution of developmental problems

Social -

Adjustment to self & others
Learning to communicate
Evaluation of ideas
Social phases of personality
Sense of belonging and acceptance
Positive personality traits
Constructive use of leisure time

Emotional -

Release of tensions through physical activity
Outlet for self-expression and creativity
Appreciation of aesthetic experiences
Ability to have fun
Fulfillment of basic needs through physical activity

SPECIFIC DISABILITIES

Allergic

Anemic

Blind and Partially Sighted

Cardiac Disabilities and Rheumatic Fever

Deaf and Hard of Hearing

Diabetic

Mentally Different
- Gifted
- Retarded
- Emotionally Disturbed

Musculoskeletal or Orthopedic
- Arthritis
- Muscular Dystrophy

Neurological
- Epileptic
- Cerebral Palsy
- Multiple Sclerosis
- Polio

Perceptual Learning Disorders

Tuberculosis

Deviations of the Spine

The Allergic

Definition

An allergy is a condition of hypersensitiveness to specific substances. It can range from a mild skin rash or swelling of the fingers to violent headache, upset stomach, hay fever and asthma.

Causes

Foods such as eggs, chocolate, seafood, fresh berries and fruit, milk, beef and wheat are capable of causing problems. Dust and pollen from ragweed and certain other grasses, animals and fowl (including wool and feathers) also make up part of the causative picture for allergies.

Symptoms

Signs of the common cold, such as nasal discharge, watery eyes, coughing, wheezing, sneezing, general skin redness, swelling, eruptions, blisters or hives.

Problems

An asthmatic attack is caused by the swelling of the mucous membrane lining of the bronchial tubes which makes expiration very difficult. Inhalation problems can cause cyonisis (bluing) of the skin and cold hands and feet. The asthmatic retreats from physical activity which lowers tolerance--allowing more frequent recurrence of attacks. Hay fever sufferers are sometimes limited during Spring, Summer and Fall. Some acquired diseases (Hodgkins' disease) increase allergic sensitivities.

Recommendations

Asthmatics need progressive developmental activities to develop endurance. Those sensitive to dust should be restricted during dry, windy seasons outdoors and when mats are in continuous use.

The Anemic

Definition

This is a condition which refers to a defect of the blood. It is a deficiency in hemoglobin and the reduction of red corpuscles causing a lack of oxygen in the blood.

Causes

Anemia may be caused by nutritional deficiencies, infection or unusual blood loss. Parasitic diseases, such as hookworm or malaria may cause problems in blood-forming tissues.

Symptoms

The pupil may lack strength and endurance due to lack of oxidation in the muscles and may be weak and dizzy even though he seems to look well. Generally the common signs are skin pallor with occasional nervousness and shortness of breath.

Problems

The amount of activity should be determined by physician. Since the pupil tires easily he finds it difficult to keep up with classmates and tends to withdraw from activities. However, some normally active pupils may become defensive when limitations are imposed.

Suggestions

There are many areas of participation for the anemic student without jeopardizing his health or energy. Endurance and strength activities should be postponed in favor of participation which furnishes alternating observation with involvement. There is great social benefit in being a part of the physical education class though it might be difficult to prevent overdoing and protect the student from embarrassing limitations.

The Blind

Definition

The blind are those persons with vision that has no functional value. There are many kinds and degrees of blindness that make up the partially sighted category. To be educationally blind is to receive education through means other than visual. The age at which a person suffers a vision loss has as much bearing on his needs as the degree to which his sight is affected. Blindness at birth is more handicapping than that which occurs later in life because it prevents the establishment of visual concepts of any kind. Approximately one out of every four children has some significant sight loss. The greater majority of these have such slight deviations that no special provision need be considered. About one in 1500 students cannot be offered opportunities in normal schools.

Causes

Commonly caused by accidents, diseases and heredity. The use of pure oxygen in incubators for premature babies caused retrolental fibroplasia which is responsible for a great amount of blindness in school age children today. Small pox, measles, meningitis, mumps, syphilis, tuberculosis, septicemia, scarlet fever and typhoid fever comprise the declining infectious disease cause. Heredity and other unspecified prenatal conditions are the primary causes now that blindness due to accidental injuries is also on the decline.

Symptoms

Symptoms that may indicate eye disorders are: bloodshot eyes or swollen eyelids, styes, discharges, lack of coordination in directing vision, rubbing of eyes or squinting, tenseness of body, forward thrust of head, stumbling, faltering or overcautious locomotion, light sensitivity and difficulty in distinguishing colors, and difficulty in estimating distance.

Mannerisms typical of those with severely limited vision include, rocking forward and backward, turning around repeatedly, bending head forward, waving hands in front of face and rubbing eyes continuously.

Problems

The teacher must orient the student to all facilities, equipment and areas and keep those free of any hazards and obstacles. Provision of special equipment where possible and pairing with sighted classmates reduces adjustment problems of the student. Overcoming misconceptions could be the most important contribution of the physical education experience. There is no documentation that the blind with partially sighted have more accidents, need more supervision, nor have difficulty participating effectively in activities.

Suggestions

Insist on maximum valid participation, offering as much if not more vigorous activity as for children of normal vision. Discourage enrollment of all visually impaired students in the same class. Developmental posture exercises can be prescribed for the individual to be performed at home or with a classmate during free time.

A program of training in mobility will increase self-reliance and successful interaction with peers. Adapt activities according to degree of vision loss while encouraging participation as nearly as possible on an equal basis with sighted peers.

Though visual impairments do not affect the developmental sequence in children, the timing of the specific stages is affected. High levels of physical fitness are more important for the visually impaired than for those with normal vision.

Definitions and Causes

Heart disorders are of two classifications, organic and functional. In an organic disorder a lesion exists in some part of the cardiovascular system. There is a disturbance of function but no lesion in the functional category. The rheumatic and congenital conditions are the primary heart problems found in schools. Rheumatic fever is caused by a strep infection. The heart may also be affected by anemia, an overactive thyroid gland, tuberculosis and diptheria. Problems concerning the heart probably cause more concern to the student and his parents than most any other disability.

Symptoms

A rheumatic fever symptom that accompanies the fever is leg pains--sometimes confused with "growing pains". Symptoms of heart disease may be pain in the chest, shortness of breath, edema (swelling) in the feet, ankles, or abdomen, dizziness, fatigue, indigestion of double vision. The American Heart Association uses a classification which provides enough information so that a cardiac child will not be unduly restricted from physical activity:

Class I: Patients with heart disease but without resulting limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpation, dyspnea, or anginal pain.

Class II: Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea, or anginal pain.

Class III: Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary activity causes fatigue, palpitation, dyspnea, or anginal pain.

Class IV: Patients with cardiac disease resulting in inability to engage in any physical activity without discomfort. Symptoms of cardiac insufficiency or of the anginal syndrome are present even at rest. If any physical activity is undertaken, discomfort is increased.

Problems

The cardiac pupil should avoid highly competitive activities, hanging and climbing, maintaining one position for an extended time, exposure to extreme weather conditions, any activity involving breath holding, prolonged activity or one involving speed, and throwing objects for speed or distance. A student who yawns or is gasping on slight exertion, has difficulty in breathing, or blueness of lips should be sent to a nurse's office immediately. Moderation, rather than fear should be the guide in program planning.

Suggestions

The limitations and capacities of each pupil should be known to the teacher so that the cardiac can participate within his tolerance. The pupil should be allowed to rest whenever he becomes tired and a rest period should be alternated with an activity period of short duration. Activities and exercises should be performed slowly and rhythmically and the student should exhale on the effort phase of the movement to reduce the strain on his cardio-respiratory system.

There is no reason why young people of varying cardiac conditions should be denied the benefits and pleasures from activities within a safe range. Have a positive attitude toward the child who has a disability and try to create this attitude in the rest of the students.

The Deaf And Hard Of Hearing

Definition

Deafness means total loss of hearing, whatever the cause. Hard of hearing ranges from 16 decibels to 82 decibels.

Causes

Congenital for most nerve deafness--the child was born deaf or inherited the tendency for the hearing to deteriorate at an early age. The contagious diseases suffered by the mother during the early stages of pregnancy which have been indicated as causes of deafness include German measles, mumps and influenza.

Perceptive or nerve deafness, not of a congenital origin, is caused by brain infections such as meningitis, brain fever and sleeping sickness plus communicable diseases such as scarlet fever, measles, influenza and others. There are also categories of conduction deafness--caused by a physical obstruction and functional deafness which is psychogenic rather than organically caused.

Symptoms and Problems

Balance is sometimes poor (especially in situations where they cannot see the horizon or in total darkness). In addition, poor articulation, delayed speech, and lack of responsiveness may be present. Normal language is not possible for the totally deaf. The degree of hearing loss and age of onset are influencing factors.

Language difficulties lead to social difficulties. Extremes of behavior are noted--from withdrawal to violent outbursts of rage. Children tend to communicate manually (and one researcher found that the deaf are more concerned with attitudes of peers than those of authorities.)

Some teachers have found that lung capacity and the chest wall of nonhearing students are not as well developed. Some note a shuffling gait.

Suggestions

Speak normally, facing the class, but don't exaggerate mouthing of words. Speak in a normal tone, do not whisper or shout. Swimming for fenestration patients is seldom allowed. Early elementary development of basic motor skills and rhythm activities is desirable. Use of cymbals, triangles, drums, tambourines, hand-clapping, bells, heel-clicking and foot-stamping are suggested in lieu of recorded music.

Introduce running, rope-jumping, and calisthenics gradually and assign as outside work for all ages to increase endurance and strength.

Develop creativity with use of dance. Deaf choreographers have enjoyed using manual language to construct routines. When dance is employed for communication, the dance is absolute--other affects only supplement the dance.

The play of the deaf will seem more aggressive. There does seem to be a higher incidence of accidents. The wide range of the hearing limitation and the covert facet of this disability create problems because those without this limitation fail to recognize the deficiency. Thus, misunderstanding of the natural shortcomings of the deaf and the hard of hearing develops. Boxing is contraindicated, as is rebound tumbling.

The Diabetic

Definition

Diabetes is a disease characterized by the inability of the body to assimilate starches and sugars properly. The type most prevalent in the school aged child is diabetes mellitus.

Cause

The full cause is unknown, though the pancreas is responsible for the insufficient production of insulin. Heredity plays a large part in the cause of diabetes.

Symptoms

The signs that teachers should be aware of include thirst, hunger, fatigue, loss of weight, frequent urination, and infections which are slow to heal.

Problems

Properly regulated exercise is required by all diabetics, but must be timed to follow a meal, when the body's blood sugar is at its highest. Rest periods should be scheduled just previous to a meal when fatigue could be severe. The diabetic student is prone to develop serious infections especially to the skin of the lower legs and feet. The signs of insulin shock are: nervousness, trembling, hunger and perspirating. This is caused by too little food or too much insulin and the body needs more sugar. The eating of a lump of sugar or an orange gives immediate relief.

Diabetic coma results from too little insulin and is a more severe problem. It is characterized by drowsiness or muscular pain and can result in unconsciousness. A physician should be secured immediately. Individuals under medical care are not likely to experience coma.

Suggestions

Exercises and activities should be regulated and planned. The amount of activity should remain constant. Exercise is important not only because it decreases the need for insulin but because it increases general health.

The Mentally Different

The Gifted

Definition

Those students who score 130 in the standard intelligence test are generally known as gifted.

Symptoms

Some are recognizable by their curiosity, interest in investigation regarding rationale and ability to locate and conceptualize solutions.

Problems

Often the gifted student is estranged from his peers because of greater success in intellectual endeavors which can lead to failure in mutual understanding. As this situation exists, the gifted student tends to recede in motor ability. Because of low incidence of this deviance, too few educators are aware a problem exists.

Suggestions

Use natural preference for individual sports as carry-over to motivate. Interest student in team activities. Encourage development of mutual patience and tolerance of and with average classmates. Exploit the conceptual abilities by application to game strategies to develop improved relations with classmates.

The Mentally Different

The Retarded

Definition

Mental retardation refers to a state of slow or insufficient intellectual development. It is a chronic condition present from birth or early childhood and characterized by impaired intellectual functioning. The types are separated by ratings on intelligence tests as: severely retarded 0 - 19; moderately retarded or trainable 20 - 49; mildly retarded or educable 50 - 70.

Causes

During early pregnancy x-rays used excessively and German measles can cause retardation. Other causes may be metabolic errors, chromosome abnormalities and faulty biochemical reactions. Acquired retardation can result from lead poisoning, meningitis, and malfunctions such as hydrocephalus.

Symptoms

A short attention span, lack of imagination, originality and creativeness, inability to conceptualize or to benefit from past experience when learning new experiences, being interested in activities of younger groups, and disruptive group behavior.

Problems

Many motor skills and abilities learned by association by most normal children must be taught to the retarded. Awkwardness exhibited by many retardates is not a lack of inherent motor deficit but rather a lack of intellect. Major problems are developing social competence and teaching the effective use of leisure time. They tend to lack aggressiveness and may interpret failure as a rejection.

Suggestions

The retarded are great mimics and will learn easily from demonstration and working with an adept 'buddy'. Praise and encouragement are invaluable and should be given for effort even when that effort fails to result in successful performance. Plan to ensure success. Practice periods should be short with frequent variations. Use all visual aids available, continually re-stimulating and re-motivating. Invent methods to measure performance frequently so student can see progress. Set reachable goals and always expect maximal performance.

The Mentally Different

The Emotionally Disturbed

Definitions

Emotional disturbance is an encompassing term including such diagnosed categories as neurologically impaired, hyperactive, phobic, psychotic, and those with behavior disorders. It can be defined as encompassing children with emotional problems severe enough to prevent them from making the necessary adjustments for effective functioning in the culture.

Causes

The emotionally disturbed child experiences extreme difficulty in learning, a gross inability to socialize, very poor self concepts, some evidence of neurosis or phobia, and an inability to work toward or reach his potential. Behavior can range from withdrawal to hyperactivity. Motor ability is underdeveloped and the child complains of physical symptoms when unable to perform physical activities.

Problems

The child may exhibit poor work habits in practicing and developing physical skills and fitness. There is a lack of motivation if goals cannot be immediately met. The hyperactive are compulsively disruptive and the withdrawn are difficult to involve. There is an inability to follow directions, a short attention span and poor coordination.

Suggestions

If inappropriate behavior is not contagious, ignore it. To demonstrate concern and willingness to help, the teacher may stand next to a child who is having difficulty. Involve child actively in any phase of the activity when his interest starts to wane. Reduce tension with a touch of humor. The emotionally disturbed child benefits most from the activities appropriate to normal children a year or two younger.

Musculoskeletal Or Orthopedic

Arthritis

Definition

Arthritis is a term meaning joint inflamation. The three most common forms are arthritis due to infection, arthritis due to rheumatic fever, and rheumatoid arthritis. Two additional types are arthritis following trauma and osteoarthritis which is a degenerative joint disease of the aging.

Symptoms

Inflamation and swelling of joints and tendons which inhibit movement and cause discomfort and pain are symptomatic.

Causes

Infectious arthritis has greatly decreased with the use of antibiotics, but is seen in conjunction with meningitis, pneumonia and strep infections.

Problems

Uncontrolled infection may result in deterioration of the bone. Arthritis may follow trauma (athletic injuries).

Suggestions

The arthritic student may need rest periods in combination with a well planned exercise program. A variety of sports and games may be part of the program including as much swimming as possible. Posture training and good body alignment should also be stressed.

Musculoskeletal Or Orthopedic

Muscular Dystrophy

Definition

Muscular dystrophy is a chronic, progressive degenerative disease of the muscular system. It is noncontagious and not fatal in itself though it contributes to a premature death. There are four main types. (1) Pseudohypertrophic is the most common form affecting children between ages 3 and 10. Three times as many males as females are affected. Its symptoms are bulky calf and forearm muscles. The wasted muscles are replaced by fatty deposits and fibrous tissue. The child walks on his toes, can't get his heels down. (2) Juvenile form begins in adolescence and equally affects males and females. There is more general muscle weakness but the progression is slower and victims may reach middle age. (3) Facioscapulohumeral dystrophy generally arises by early adulthood affecting the shoulder and upper arms. A weakness in facial muscles causes a mask-like appearance that lacks expression and an inability to whistle, drink through a straw or close eyes while sleeping. (4) The mixed type occurs between ages of 30 and 50. Weakness appears first in the shoulders or in the pelvic girdle.

Causes

Though the exact cause is not known, heredity plays an important part in the areas affected and in the severity of the disease.

Problems

Progressive weakness tends to produce adverse postural changes. There is a loss of fine manual dexterity. Students will tire easily and are prone to respiratory infections. An emotional problem can result from the progressive nature of the disease which places restrictions on social opportunities.

Suggestions

Games that use specific body parts will help delay disuse atrophy in muscles that are still functioning. Remedial and developmental exercises should be under medical direction. But generally, keep the student active as long as possible without overfatiguing.

Epileptic

Definition

Epilepsy is a brain-centered malfunction or lack of function due in part to a disturbance in the electrochemical activity of the brain. It is a physical disease, not a mental disease. It is a condition of the nervous system resulting in temporary loss of consciousness without apparent cause.

Since only severe cases are detected it is difficult to determine the incidence of epilepsy but careful estimates by the Epilepsy Foundation of America, state one in every fifty children has epilepsy.

The types of epilepsy are categorized according to the severity of the seizures: The most common is the Grand Mal which involves violent shaking of the entire body accompanied by temporary loss of consciousness--usually lasting about 2 - 5 minutes. Frequency ranges from one or more times each day to only once each year; Petite Mal lasts only several seconds or just less than a minute and involves a simple staring spell. However, it may occur repeatedly in one hour; Psychomotor is inappropriate or purposeless behavior with subsequent amnesia regarding the episode. Usually lasts 2 - 5 minutes and may occur one or more times weekly, monthly or annually.

Causes

The exact cause of epilepsy is not known. If there is a predisposition for seizures, certain other conditions may combine with it to bring about those seizures. These conditions include: serious brain injuries, infection in the brain from certain diseases, tumors, metabolic disturbances and emotional upsets.

Symptoms

Fortunately there is often a warning before the onset of a seizure. These symptoms may include nausea, shivering, arm or leg pains, muscle twitching or weakness, hallucinations of flashes of light, of sounds or tastes.

Repeated occurrences of two or more symptoms happening together and without variation may indicate a form of epilepsy. These are: staring spells, (day-dreaming), tic-like movements, rhythmic movements of the head, purposeless sounds and body movements, head dropping, lack of response, eyes rolling upward, chewing and swallowing movements.

Problems & Suggestions

If the epileptic student is standing when he loses consciousness, he may fall with a board-like rigidity. It may be necessary for the teacher to place the student in such a position that he cannot injure himself by knocking his body against hard objects. Any tight clothing (especially collars) should be loosened or removed. The child should be kept on his side so that anything within the mouth may flow out more freely. It is unnecessary to place anything between the teeth. Consciousness will return and the student should be allowed to rest.

Neurological-Epileptic - continued

Following a grand mal attack, it is not unusual to notice incoherent speech, confusion or restlessness. Since the behavior is not willful no discipline should be used. When necessary, classmates may need reassurance that such behavior is not contagious. Due to still prevalent stigmas, many families of epileptic children prefer that the disease not be referred to in explanation to peers.

Because of difficulty in diagnosing of the disease, it is important that the teacher note carefully the symptoms and duration of the behavior so that the medical personnel responsible can enter the accurate description in the student's history.

The physical education teacher should provide alternate activities during those classes which involve height (high horizontal bars, parallel bars, rings, ropes, stall bars and diving boards). A buddy system in swimming is strongly recommended for epileptic students.

It is of great benefit for the student with this disorder to take part in all gymnastics and physical education possible. Participation precludes emotional problems for any student if separation from peers occurs.

Neurological

Cerebral Palsy

Definition

Cerebral palsy is a condition affecting the motor control centers because of lesions in various parts of the brain. Movement is impaired and awkward and often is accompanied by postural difficulties. Speech is affected and hearing and other perceptions may be below normal.

The different clinical types of the cerebral palsied display various motor patterns. Spastic cases comprise 50% of the population of this disorder, 25% are athetoid, 13% rigid, and 12% are either ataxia, atonia, tremor or mixed.

Cerebral palsy has a multiplicity of signs and problems which make it difficult to predict success or failure for a victim's outcome.

Symptoms

Ataxic: loss of balance, need to balance one segment at a time (immobilizing trunk until head balancing is learned, then trunk or pelvis, then standing or walking). Can show improvement of control but under stress will revert.

Athetoid: Continuous involuntary muscle action, speech defect, extroversion, unselfconsciousness about appearance.

Rigidity: Hard to distinguish from ataxia, but slower. Stretch reflex is impaired.

Spastic: Scissoring of legs in walking gait, strong involuntary muscle contractions, flexion at the elbows with forearm pronation, wrist and finger flexion. Maintenance of good posture is extremely difficult.

Tremor: Rhythmic tremors of any or all parts of the body; difficulty in moving. Different from other neurological disease paralysis in that muscles are not atrophied.

General symptoms of secondary impairments are mental retardation, hearing and vision loss, emotional disturbance, loss of perceptual ability, and difficulty in making psychological adjustments.

Causes:

Cerebral palsy is congenital, having developed sometime after conception until birth plus a few weeks, and acquired as a result of accidents and illness. Injuries to the motor area of the brain can be produced by severe injury to the skull. High temperatures for a prolonged period--which result in reduced oxygen--can also produce brain damage. Some injuries at birth are not detectable for a long period of time.

Suggestions

Since there is a tendency to overreact to a stimulus, reduce stimuli to a bare minimum--loud noises cause total reaction. Reduce the speed of a ball (or substitute a balloon with two tablespoons of water inside for a volleyball). Extremely warm water is recommended for swimming. Major emphasis should be on relaxation.

Insure some success, even if in such simple tasks that non-handicapped children would fail to be challenged. Activities selected will be determined by the kind and severity of the disability. Exercise and training can lessen tensions and improve muscle control. One of the tasks of the teacher is to help the student work toward improvement of conscious control of movement and voluntary relaxation.

It may be necessary to help classmates understand the cerebral-palsied student. One of the best ways he can be helped to feel a part of the group would be maximum participation on his level which could be achieved by (1) substituting a walk for a run, (2) using a bounce for throwing, (3) by having the ball bounce before catching it, and (4) by decreasing tempo of rhythmical movements. Physical education programs can make a tremendous contributions to the total development of the cerebral palsied child. Through broad play experience, he may be provided with opportunities to develop socially with peers as well as assist the physical development and muscular control that is so badly needed.

Neurological

Multiple Sclerosis

Definition

Multiple Sclerosis is a neurological disease affecting people between teenage and forty years. It is characterized by loss of function and sensation.

Causes

Though a virus is suspected, it is an unknown cause which results in disappearance of myelin from the nerve sheath in scattered areas throughout the central nervous system (except for peripheral nerves).

Symptoms

Early symptoms may disappear completely, returning later in a more persistent form. The loss of function and sensation is unpredictable. Symptoms may also include double vision, ataxia, flaccidity.

Problems

Emotional problems result when outcome is not known and effects vary from irritability and depression to unusual cheerfulness.

Suggestions

Ambulation, coordination and strength all need developmental exercise. In each situation, a physician's counsel is desirable regarding prescribing of activity.

Neurological

Polio

Definition and Causes

Poliomyelitis is an acute infectious disease caused by a virus. The disease causes an inflamation of various parts of the nervous system. The voluntary muscles involved become paralyzed as a result of the impulses being cut off. The incidence today is rare, only 100 - 400 cases annually.

Symptoms

Complaints of flu--high temperature, nausea with inability to flex the neck. Many cases go undetected and some do not result in paralysis. There is swelling around the nerves during the course of the disease.

Problems

The disease can affect respiration and can cause death. The muscular weakness limits endurance. Each child with a history of poliomyelitis is different and individual assessment of needs and limitations is required.

Suggestions

Choose activities that represent the widest range appropriate for the student's age group. Avoid activities which might create muscular imbalance by strengthening one group of muscles at a faster rate than the antagonistic group. Correct body alignment and movement patterns are of great importance to prevent development of malalignment.

The pupil should avoid stretching paralyzed muscles and overloading weakened muscles and general fatigue. The problems involved are such that the teacher should seek advice from medical personnel in planning the student's program.

Perceptual Learning Disorders

Definition

The perceptual motor function is defined as the knowledge we have of the spatial relationships of the body with its environment and the various parts of the body with each other. It involves being able to visualize these elements in movement and in different positions. The types of learning disorders relate directly to the developmental process: (1) Developmental tasks can be defined as an important accomplishment which the individual must achieve by a certain time if he is going to function effectively and meet the demands of living. (2) Ages and stages refer to periods of development which can be characterized by certain types of behavior. (3) Developmental milestones refer to strategic indicators of how far development has progressed.

Causes

Some theories involve lack of proper stimulation during specific developmental stages. The learning disorders diagnosed at the pre-school and early elementary level seem to be congenital.

Symptoms

Muscular tenseness, lack of concentration, lack of muscular control, favoring of one side of the body (lack of symmetry), inability to sustain movement or control movement, inability to cross mid-line, lack of balance, inability to complete a pattern involving hand-eye coordination, hesitancy in trying or in performing a task, emotional outbursts or explosive movements and lack of awareness of objects around him.

Problems

It is difficult to arrange sufficient scheduling of physical education class work for the early elementary level, which is the level of greatest need.

Suggestions

The early activities need to be practiced and learned, (rolling over, crawling, creeping). Develop understanding of relationship of up to down, gravitational pull, sideways, front and back, slow and fast, straight and curved, push and pull, turn around, to bend, transfer of weight--heavy and light, and curling. Also stretching, moving around objects with hands and feet, acceleration and deceleration and altering flow of movement all need to be learned and practiced for full development.

Tuberculosis

Definition

Tuberculosis is a specific disease which affects any tissue or organ, though most commonly the lungs and the joints. Re-infection is often noted and occurs when general resistance is low due to fatigue or poor nutrition.

Causes

Tuberculosis is caused by a rod shaped bacillus which is resistant to disinfectants, heat and drying and is easily spread.

Symptoms

Excessive fatigue, loss of appetite and indigestion, fever, restlessness, and a sustained and painful cough with pain in side or chest.

Problems

The student who has recovered has a physical weakness and social defenses as he re-enters his educational world. The younger the student, the more he must be restrained. The fear of re-infection can be a serious inhibitor of activity.

Suggestions

The strenuousness of the program should be gradually increased until the strength and endurance of the student is developed. Medical personnel should be contacted for prescription of participation. Competition is unsuitable as is any participation in an emotionally exciting game. Generally, activities should be adapted according to the student's level of functioning.

Causes and Definitions -

The causes of spinal disabilities are congenital, injury, disease and postural.

Torticollis (wryneck) is a deformity of the neck in which the head leans toward one shoulder while the chin is tilted toward the other shoulder. Specifically caused by shortening of the sternocleidomastoid muscle, this can occur as a congenital malformation of the spine or as a compensation for a visual defect.

Spina Bifida is a malformation occurring on the posterior aspect of the spinal column in which the neural arch fails to close. It can also have an external sac and may cause some paralysis.

Wedged vertebrae prevent any lateral bending thereby causing rotation of the spine. Most commonly this is found in the fifth lumbar vertebra.

Lordosis differs from a simple hollow back in that the abdominal line is straight, or not protruding. In either case the hypertension in the lumbar spine is exaggerated.

Kyphosis is seen in varying degrees from simply too much flexion in the dorsal spine to a "humped back". Sometimes this occurs with a flat chest or forward or round shoulders.

Kypholordosis is the combination of the two deviations mentioned and is often the result of the body compensating for whichever curve was originally exaggerated, with the secondary curve.

Cervical lordosis also results from a compensatory effort to balance curves at any lower level of the spinal column.

Scoliosis. The primary function of the spine is to maintain an erect position. When an imbalance appears--for whatever reason--the body attempts to recover and there can be a distortion of the vertebra by rotating. Rotation causes a backward displacement of the ribs on one side of the body and a flattening of the ribs on the opposite side. When viewed from the rear, a scoliotic curve can be described as a "C" or an "S" curve. The degree of rotation determines the ability to participate in specific activities and most authorities recommend consultation with an orthopedic specialist.

Whiplash injuries are sustained when the head is forcefully snapped forward and back. Weakness, specifically poor abdominal muscle tone and faulty spinal alignment cause a vulnerability for injury and low back pain.

Symptoms

Sudden or prolonged growth spurts are possible symptoms of developing spinal malalignments. Recurring, persistent, or severe pain or discomfort which is unrelated to trauma can be either the result of abnormalities or the cause of problems if compensatory postures or movements create rotation of the vertebra.

Deviations of the Spine - continued

Suggestions

Exercises to stretch or strengthen specific muscles should be approved if not prescribed by a physician. Overuse of unaffected antagonistic muscles must be avoided. Although the teacher should know the potentialities and limitations of a student, his mental health will be improved when participation with peers is allowed. Activity should begin at the skill level of the student.

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SPECIFIC DISABILITIES REFERENCE GUIDE

Pages of Reference

Disabilities	Wheeler, Hooley	Arnheim, Auxter Crowe	Daniels, Davis	Fait	Telford	Park & Rec.	JOHPER or other
ALLERGIC	244		287	141			
ANEMIC	247	352	285	139			
BLIND	250	304	257	50	271	6	Jan '70
CARDIAC	257	206	163	98			
DEAF	272	319	273	64	297	10	Mar '69: David, Silverman
DIABETIC	277	359	290	135			
GIFTED	294						
RETARDED	288	258	307	147	221	1	Jan '70: P.E.Rec. Parks
DISTURBED		286	295		399		June'69
ARTHRITIS	296	245	143	87			
DYSTROPHY		251	319				
EPILEPTIC	280	341	217	137	349		TIPS FOR TEACHER
CEREBRAL PALSY	264	329	187	74	333		
MULTIPLE SCLEROSIS			317				
POLIO		348	238				
PERCEPTUAL							Apr.'70, Jan'69, Jun'69 Foundations: AAHPER
TUBERCULOSIS	306	362	312	133			
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SPECIFIC ACTIVITIES FOR DISABILITIES

Criteria For The Selection of Activities

The importance of the proper selection of physical education activities for the handicapped child should not be minimized. The selection of activities to be included in the physical education program should be made on the basis of two general groups of criteria. The first is that all activities should satisfy the basic criteria required of any sound physical education curriculum. The second group includes those criteria which should be followed in the specific selection of activities for physically handicapped children: (1) activities which are appropriate to the student's age and interest; (2) activities which are in accordance with the physician's, or other specialists specific recommendations; (3) activities which do not require extensive adaptation of rules or major changes in the nature of the activity; and, (4) activities which are applicable to the greatest number of students with regard to their various physical limitations. Such a program may be characterized as one in which the activities are chosen because they contribute to the development of the basic factors of human movement or motor performance. These factors may be identified as muscular strength, endurance, flexibility, relaxation and neuromuscular coordination.

The program should provide for gradual progression from the simplest level of performance that the individual's condition and previous experience permits to the highest level of performance that he is able to achieve. The program should stress the teaching of fundamental skills since many students have not had an opportunity to develop skill in the various activities. Sports with carry-over value should be stressed, and students should be given insights into the benefits so devised.

Only those activities which have a minimum of injury expectation and which will not aggravate the individual's condition should be selected. To this end, the selection of activities must be based on the individual characteristics of each student. Although the selection of activities must be made on an individual basis, every effort should be directed to provide experience in a variety of dual, group, or team games and sports. It is through participation in group activities that the individual is afforded the best opportunity for the development of desirable social characteristics that stimulate group identification, recognition, and approval. Therefore, group activity should be a goal of the sports program. The socializing benefits of the activities should be stressed. The students should learn to play with as well as against other persons.

The value of the handicapped student's participation in the carefully selected activities in the sports phase of the program are many. The activities may provide one form of relief from the tension of modern living and a momentary rearrangement of the student's emotional life. The child may secure satisfaction often denied in other areas of life through his participation in muscular activities. In addition, the socializing benefits of physical activities are needed by the handicapped child so that he may be temporarily released from the usual cares of daily living.

A goal of the adapted physical education program is to include the handicapped student in the regular physical education program. Therefore, the sports phase of the program must provide the opportunity for the student to develop and utilize those interests, understandings, and skills which will permit him to participate safely and successfully with his non-handicapped peers.

Procedure For Students Participating In Adaptive Classes

1. Medical doctor's diagnosis and evaluation (form letter supplied by nurse).
2. Student's interpretation of his condition.
3. Functional ability test in order to determine the general physical fitness of the student.
4. Class activities are determined by a conference with the doctor, nurse, other specialists and the instructor.

   a. prescribed individual exercises
   b. functional ability activities
   c. adapted sports

Activities

A. Amputations - In general, activities which call for a single response in group and recreational areas.

1. One arm missing

Athletic Games

1. Badminton
2. Basketball
3. Bowling
4. Club Snatch
5. Croquet
6. Crows and Cranes
7. Dodgeball
8. Football
9. German Bat Ball
10. Golf
11. Hit Pin Baseball
12. Kick Baseball
13. Long Ball
14. Shuffleboard
15. Soccer Baseball
16. Soccer
17. Score Spot Tag
18. Speedball
19. Squash
20. Tennis (all forms)
21. Volleyball

Combative Sports

1. Fencing
2. Hand Wrestle

Dances

1. All forms offered in the normal physical education program.

Individual Athletics and Stunts

1. All track & field except pole vault
2. Backward & forward rolls
3. Basketball, baseball, football throws
4. Football kicking for distance & accuracy
5. Fundamental sport skills for appreciation
6. One arm medicine ball throw
7. Sit ups
8. Snap up
9. Tennis & volleyball serves
10. Three pegs

Relays

1. All track, swimming & skating
2. Centipede
3. Leap Frog
4. Skin the snake relay

Aquatics

1. Diving
2. Water games & stunts
3. Sailing

Miscellaneous Activities

1. Bait & fly casting
2. Bicycling
3. Curling
4. Pistol shooting
5. Skating-roller & ice
6. Weight lifting
7. Hiking & climbing

2. One leg missing

Athletic Games

1. Bombardment
2. Bowling
3. Channel ball
4. Circle Ball
5. Croquet
6. Duck on the rock
7. Horseshoe pitching
8. Newcomb
9. Shuffleboard
10. Table tennis
11. Tether ball

Combative Sports*

1. Cock fight
2. Dog fight
3. Foot push
4. Fowl fencing
5. Going down
6. Indian wrestle
7. One-sided wrestle
8. Stick stand

* See the Handbook of Stunts by M. Rogers for an explanation

Dances

1. Dependent upon the limits of the individual-brace, artificial limb

Individual Athletics and Stunts

1. All stunts on horizontal bar, rings, parallel bars and side horse-allowance for dismounts
2. Chinning
3. Crab bend
4. Elbow stand
5. Forearm stand
6. Forward & backward roll
7. Head & hand stand
8. One leg squat
9. Push ups
10. Rope climb
11. Seal flap
12. Sit ups
13. Three pegs
14. Serves in volleyball & tennis

Relays

1. Catch-throw and sit - non-running - crab walk relay, dumb-bell pushing
2. Passing relays - overhead, zigzag

Miscellaneous Activities

1. Archery
2. Bait & fly casting
3. Bag punching
4. Basket shooting
5. Fishing
6. Pistol shooting
7. Rope spinning
8. Juggling

B. Ankylosed Joints - Activities in which the student does not have to make rapid movements but may still achieve recognition.

1. Ankylosed hip

Athletic Games

1. Badminton(doubles)
2. Softball
3. Basketball (nine court)
4. Bowling
5. Captain ball
6. Circle Ball
7. Club snatch
8. Croquet
9. Dodge ball
10. End ball
11. Germar bat ball
12. Hand baseball
13. Hang tag
14. Hit pin baseball
15. Hog tag*
16. Horseshoe pitching
17. Kick baseball
18. Milling the man*
19. Newcomb
20. Shuffleboard
21. Soccer baseball
22. Tennis (double, deck, paddle & table)
23. Tether ball
24. Volleyball
25. The beater goes around*

* See Games, Contests & Relays by S.C. Staley for explanation.

Combative Sports

1. Contraindicated

Dances

1. Natural
2. Social

Individual Athletics & Stunts

1. Basketball throw
2. Basket shooting
3. Football passing for distance & accuracy
4. Floor dips
5. Forward roll
6. Golf-driving & putting
7. Head stand
8. Medicine ball throw
9. Pull ups
10. Rope skipping
11. Volleyball & tennis serves

Relays

1. Basketball, run, shoot relay
2. Center pass shuttle relay
3. Crab walk relay
4. Eskimo Relay*1
5. Man lift relay*2
6. Ten trips
7. Throwing shuttle relay
8. Tunnel rolling relay
9. Zigzag ball passing relay

*1 See Active games & contests by Mason & Mitchell
*2 See Games, Contests & relays by S.C. Staley

Aquatics

1. Canoeing, rowing, and sailing
2. Water sports - not polo
3. All strokes
4. Water stunts

Miscellaneous Activities

1. Archery
2. Bag punching
3. Bicycling
4. Casting
5. Curling
6. Fishing
7. Juggling
8. Pistol shooting
9. Rope spinning
10. Weight lifting

C. Blind & partially sighted - activities which further develop coordination and body control

Athletic Games

1. Archery - using sound as a target
2. Baseball - ball rolled, bat swung like a hockey stick
3. Basketball*
4. Bowling
5. Club Snatch
6. Football*
7. Golf - caddy gives directions & lines up putts
8. Horseshoe pitching
9. Kick baseball
10. Shuffleboard (table)
11. The beater goes around

*See Education of the Blind by Frampton for an explanation.

Combative sports

1. Hand wrestle
2. Wrestling

Dances

1. Folk
2. Rhythms
3. Social
4. Tap

Relays

1. Crab walk relay
2. Man lift relay*
3. Passing relays
4. Rolling relays
5. Running relays - use of ropes at waist level up to 75 yds

*See Games, Contests & Relays by S.C. Staley

Individual Athletics and Stunts

1. Apparatus - with guides
2. Broad jump (standing)
3. Doubles tumbling
4. Floor dips
5. Jump stick
6. Kicking for distance
7. Leg lifts
8. Pull ups
9. Rope climbing
10. Rope skipping
11. Rope spinning
12. Shot put
13. Sit ups
14. Throwing for distance
15. Tumbling (rolls, cartwheels)

Aquatics

1. All forms of boating
2. Swimming

Miscellaneous Activities

1. Bag punching
2. Bicycling (stationary & tandem)
3. Fishing
4. Hiking
5. Rope skipping
6. Skating-ice & roller
7. Tug of War
8. Weight lifting

D. Cardiac Disturbances - activities in which the individual effort is under the direction of the performer; provide adequate rest periods.

1. Functional cardiac disturbances

Athletic Games

1. All games of low or semi-organized activities
2. Badminton doubles
3. Softball
4. Handball - doubles
5. Soccer - halfback & fullback positions
6. Touch football - short periods

Combative Sports

1. General contraindicated

Individual Athletics & Stunts

1. Same as for normal students with the exception of:

   a. activities demanding sustained effort and holding of one's breath
   b. rope climbing
   c. tumbling stunts, such as snap up, cartwheel, that demand rapid changes of body positions.

Dances

1. Same as for normal students with the exception of gymnastic and acrobatic dancing.

Relays

1. All relays which do not involve continuous effort, carrying heavy objects, or long runs. See organic cardiac disturbances.

Aquatics

1. See organic cardiac disturbances - light forms of water games; no water polo or basketball.

Miscellaneous Activities

1. Archery
2. Bag punching
3. Bait & fly casting
4. Bicycling (short distances)
5. Curling
6. Juggling
7. Pistol shooting
8. Rope spinning
9. Skating (all forms)

2. Organic Cardiac Disturbances

Athletic Games

1. Badminton doubles
2. Black & White; Crows & Cranes, Three Deep, The beater goes round
3. Bowling
4. Croquet
5. Golf (no tournaments)
6. Clock golf
7. Quoits & horseshoe pitching
8. Shuffleboard
9. Softball
10. Tennis (doubles, deck, paddle & table)
11. Tether ball
12. Volleyball

Combative Sports

1. Contraindicated

Dances

1. Folk
2. Natural
3. Modern
4. Simple social

Relays

1. Obstacle relays not involving high jumping or hurdles
2. Passive relays
   a. over and under
   b. tunnel rolling
3. Potato & spoon relay
4. Standing broad jump relay

Individual Athletics & Stunts

1. Self-testing
   a. baseball, basketball throw for distance & accuracy
   b. soccer & football kicking for distance & accuracy
   c. tennis & volleyball serves
2. Track events - discus
3. Tumbling stunts - forward & backward rolls

Aquatics

1. Boating, canoeing
2. Water at least 70°
   a. simple stunts - floating, treading
   b. swimming - breast, side, overarm side & backstroke

Miscellaneous Activities

1. Archery
2. Bag punching
3. Bicycling on level ground no wind
4. Fancy skating
5. Fishing, bait & fly casting
6. Ice skating in rinks
7. Juggling
8. Roller skating
9. Rope spinning

E. Deaf & hard of hearing - little need of modification

Athletic Games

1. Archery
2. Badminton
3. Softball
4. Basketball
5. Bowling
6. Football
7. Games of low organization
8. Handball
9. Horseshoe pitching
10. Semi-organized games
11. Shuffleboard
12. Six-man football
13. Soccer
14. Tennis (all forms)
15. Touch football
16. Volleyball

Combative Sports

1. Fencing
2. Hand wrestling
3. Wrestling

Dances

1. All those offered the normal individual

Individual Athletics & Stunts

1. All track events for normal student
2. All tumbling (simple) stunts emphasizing balance
3. Apparatus
4. Self-testing
   a. kicking for distance & accuracy
   b. pull ups
   c. push ups
   d. rope climb
   e. rope skipping
   f. running
   g. throwing for distance & accuracy

Relays

1. All types offered the normal individual.

Aquatics

1. For those without infection and an "OK" by the doctor
2. Boating, canoeing, sailing
3. Endurance swimming
4. Light water games
5. Fundamental swimming strokes
6. Water stunts
7. Water safety

Miscellaneous Activities

1. Bait & fly casting
2. Bag punching
3. Bicycling
4. Juggling
5. Rope spinning
6. Skating (all forms)

F. Endocrine dysfunctions - provide outlet for expression of fundamental drives and desires of adequacy, conformity and social approval; usually highly individualized program.

1. Overactive adrenal gland - team games, leadership and responsibility.
2. Hypoadrenal - lacks energy, protected against fatigue; see muscular deficiencies.
3. Overactive parathroids - bones are brittle; avoid body contact and falls; see ankylosed joints.
4. Hypoparathyroid - slow reactions; activities with slow tempo and a single response.
5. Pituitary deficiency - swimming
6. Thyroid deficiencies - poor neuromuscular coordination, lack of energy; see muscular deficiencies.
7. Hyperactive thyroid - nervous, irritable; see organic heart disturbances.

Final choice in all cases rests with the physician.

G. Long chronic illness or short acute illness - formal exercise carefully prescribed by the physician; activities with recreational skills of a light nature.

Athletic Games

1. Channel ball
2. Croquet
3. Dart baseball
4. Duck on the rock
5. Horseshoe pitching
6. Newcomb
7. Shuffleboard
8. Table tennis
9. Tether ball
10. Three deep (short periods)

Combative Sports

1. Contraindicated

Dances

1. Natural (lighter forms, short periods)
2. Social

Individual Athletics & Stunts

1. Baseball throwing for accuracy
2. Basket shooting
3. Forward passing for accuracy
4. Tennis & volleyball serves
5. Golf putting

Relays

1. Over and under passing
2. Potato and spoon
3. Tunnel rolling

Aquatics

1. Fundamental swimming strokes
2. Recreational swim

Miscellaneous Activities

1. Archery
2. Bait & fly casting
3. Bicycling (short periods)
4. Hiking (short distances)
5. Juggling (light objects)
6. Pistol shooting
7. Rope spinning
8. Skating (rinks with frequent rests)

H. Muscular Deficiencies - activities using a single response with no contact

Athletic Games

1. Badminton
2. Softball
3. Bowling
4. Cricket
5. Croquet
6. Games of low organization
   a. Crows & cranes
   b. Spud
   c. The beater goes round
   d. Three deep
7. Handball - raquets should not be used until strength & coordination develops
8. Horseshoe pitching
9. Newcomb
10. Semi-organized games
    a. dodge ball
    b. kick ball
    c. soccer baseball
11. Shuffleboard
12. Tennis (doubles)
13. Volleyball

Combative Sports

1. Contraindicated

Dances

1. Folk (simple)
2. Modern
3. Social
4. Tap

Individual Athletics & Stunts

1. Self-testing
   a. Floor dips
   b. Golf driving & putting
   c. Kicking football for distance & accuracy
   d. Throwing basketball for distance & accuracy
   e. Leg lifts
   f. Potato race
   g. Pull ups
   h. Rope climbing
   i. Rope skipping
   j. Sit ups
   k. Tennis & volleyball serves
2. Simple tumbling stunts
   a. Forward & backward roll
   b. Head stand
   c. Snap up
3. Track & field events
   a. Discus
   b. Jumping
   c. Light shot put
   d. Short dashes

Relays

1. Those offered in a regular program.

Aquatics

1. Minor games
2. Simple diving
3. Fundamental swimming strokes
4. Water stunts

Miscellaneous Activities

1. Archery
2. Bag punching
3. Bait & fly casting
4. Bicycling
5. Fishing
6. Hiking
7. Pistol shooting
8. Skating (ice & roller)
9. Weight lifting

I. Foot Defects - activities are limited by the degree of the deformity and the pain felt

1. Functional foot disorders

Athletic Games

1. See structural disorders
2. Badminton
3. Baseball
4. Basketball (fundamentals & short periods of play)
5. Cricket
6. Football (touch & regular)
7. Handball
8. Hockey (field & ice)
9. Lacrosse
10. Speedball
11. Squash
12. Tennis
13. Water polo
14. All semi-organized games
15. All low organized games

Combative Sports

1. All games with the exception of wrestling & fencing

Dances

1. Same as the regular program

Individual Athletics & Stunts

1. All apparatus stunts except those requiring heavy landing on dismount.
2. All individual athletic stunts except those involving heavy landing, or landing on one foot.
3. All tumbling stunts except heavy landing.
4. All field events except pole vault & broad jump.
5. Track events up to 220 yards.

Rela :

1. Relays for structural type
2. All fours
3. All up
4. Centipede
5. Jump the stick
6. Obstacle (crawling under)

Aquatics

1. No restrictions

Miscellaneous Activities

1. No restrictions except long hikes & arduous climbing

2. Structural flat feet

Athletic Games

1. Basket shooting using feet marbles & tin pail
2. Bowling
3. Channel ball
4. Circle ball
5. Croquet
6. Crows and cranes
7. Duck on the rock
8. Going to Jerusalem (with marbles)
9. Horseshoe pitching
10. Jacks (using feet & marbles)
11. Poison circle
12. Shuffleboard
13. Spud
14. Tennis (deck, paddle & table)
15. Tether ball
16. The beater goes around
17. Three deep
18. Volleyball & newcomb

Combative Sports

1. Hand wrestling
2. Spot wrestle
3. Wrestling

Dances

1. Modern
2. Social

Relays

1. Caterpillar*
2. Dizzy Izzy
3. Crab walk
4. Elephant
5. Human wheelbarrow
6. Kangaroo leap
7. Leap frog
8. Marble relay (sitting)
9. Short dashes
10. Swimming
11. Worm+

*See Games, Contests & Relays by S.C. Staley
+See Individual Exercises by Stafford

Aquatics

1. All water sports
2. Canoeing
3. Diving
4. Lifesaving
5. Rowing
6. Sailing
7. Swimming
8. Water baseball
9. Water basketball
10. Water polo

Miscellaneous Activities

1. Archery
2. Bag punching
3. Bait & fly casting
4. Bicycling
5. Fishing
6. Juggling
7. Pistol shooting
8. Rope spinning
9. Skating (roller, ice)

J. Inguinal Hernia - activities light enough to avoid abdominal fatigue and which do not place the body in positions which cause protrusion of the abdomen. No tumbling, competitive sports or track & field.

Athletic Games

1. Badminton
2. Basket shooting
3. Bowling
4. Captain ball (capt. & circle position only)
5. Croquet
6. German bat ball
7. Horseshoe pitching
8. Kick pin ball
9. Newcomb
10. Punch ball
11. Table tennis (recreational only)
12. Tether ball
13. The beater goes around
14. Three deep
15. Touch football (short periods only)
16. Volleyball

Combative Sports

1. Contraindicated

Dances

1. All forms offered in a regular program with the exception of gymnastic & acrobatic dances.

Individual Athletics & Stunts

1. Apparatus stunts are contraindicated
2. Track and field are contraindicated
3. Baseball throwing for accuracy
4. Basket shooting
5. Floor dips
6. Golf driving & putting
7. Head & hand stand
8. Tennis & volleyball serves

Relays

1. Short runs with the exception of the human wheelbarrow and events to carry an object.

Aquatics

1. Canoeing
2. Light water games no basketball or waterpolo
3. Sailing
4. Simple water stunts
5. Fundamental swimming strokes

Miscellaneous Activities

1. Archery
2. Bag punching
3. Bait & fly casting
4. Bicycling (short distances)
5. Fishing
6. Hiking (short distances)
7. Juggling
8. Pistol shooting
9. Rope spinning
10. Skating (all forms)

K. Malnutrition

1. Underweight - activities to increase circulation, augment respiratory mechanism, assist in elimination of body waste, and heighten metabolic process.

Athletic Games

1. Badminton doubles
2. Softball
3. Bowling
4. Games of low & semi-organized nature
5. Golf
6. Handball (short periods)
7. Horseshoe pitching
8. Squash
9. Tennis (doubles, deck, paddle & table)
10. Touch football (short periods)
11. Volleyball

Combative Sports

1. Fencing
2. Wrestling
3. All sports of low organization

Dances

1. All types offered in the regular program.

Aquatics

1. All water activities except water polo; short periods of play.

Individual Athletics & Stunts

1. All tumbling stunts
2. All apparatus stunts
3. Field events, such as jumping & vaulting
4. Self-testing stunts

Miscellaneous Activities

1. Archery
2. Bag punching
3. Bait & fly casting
4. Bicycling
5. Fishing
6. Hiking
7. Juggling
8. Pistol shooting
9. Skating (all forms)

2. Overweight - Activities that raise the energy consumption, and develop greater skill in the use of the body; avoid rapid or distance running.

Athletic Games

1. No restrictions

Combative Sports

1. No restrictions

L. Activities for the Mentally Different

Mentally Retarded

Dance
1. Ballroom
   a. waltz
   b. foxtrot
2. Simple traditional dances
3. Current "fad" dances
4. Folk dances & singing games
5. Square dance: "Shoo Fly"
6. Tap dance: clearly marked rhythms

Games of Low Organization, Individual, Dual & Team Activities:
1. Passing objects in a circle formation
2. Rolling objects to one another, while seated in a circle
3. Bowling with rubber balls on a track which is curbed on each side
4. Stride dodge ball
5. Bouncing balls to others while standing in a circle
6. Throwing & catching in line or circle formation
7. Hide & seek games
8. Relay games
9. Newcomb, modified volleyball
10. Captain ball, other modified forms of basketball
11. Kickball, punchball, other modified forms of softball, soccer
12. Flag & touch football, other modified forms of football
13. Weight lifting
14. Punching the bag
15. Simple track events, such as short dashes
16. Simple gymnastics, such as walking a wide line, walking a low balance beam, mounting a horse or buck by climbing onto it, hanging from a low horizontal bar, doing stunts & simple tumbling.

Aquatics:
1. Swimming, which at first may be merely going into the water, learning to keep balance with feet on the bottom. Gradually and with instruction the children learn to float, take a few hesitant "dog paddle" strokes and begin to swim the crawl stroke.
2. Boating, which can be accomplished after the above.

Body Mechanics:
1. Warm-up, developmental & balance exercises.
2. Posture work
3. Everyday tasks, such as lifting, carrying, pushing, pulling, stair climbing.
4. Relaxation techniques

Movement Exploration:
1. Work on individual basis but be aware of others; focus on the solution.

Mentally Gifted

Student positions, such as managers, team statisticians, etc.

Individual Activities
1. Hiking
2. Aquatics
3. Gymnastics
4. Racquet sports

Exercise can do little after mental reaction (temporary, progressive or permanent) have occurred, except as an activity of a diversional or recreational quality and may keep a person fairly contented. Just what activities are to be utilized for an individual vary with the degree of the disability. There are three purposes of activities for the "mentally different":

1. improve their physical fitness
2. way of communicating
3. some relief of symptoms

Guideline for the Mentally Different:
1. Game or activity is essentially unimportant--what is important is that they become involved in activities which are interesting to them.
2. Free atmosphere where participation is vital
3. Many gradations of activity necessary to achieve a sense of accomplishment.
4. Teaching of skills is important but physical fitness and developmental activities should be emphasized.
5. Aquatics and dance are two highly recommended activities for the "Mentally Different."

Dances

1. Acrobatic & gymnastics
2. Tap
3. Social
4. Folk
5. Modern

Individual Athletics & Stunts

1. Baseball & basketball throw for distance & accuracy
2. Field events, such as throwing & putting
3. Forward & backward rolls
4. Medicine ball throwing
5. Rope skipping
6. Sit ups
7. Volleyball & tennis serves
8. Head stand
9. Leg lifts

Relays

1. All types

Aquatics

1. All types

Miscellaneous Activities

1. Bicycling
2. Fishing
3. Pistol shooting
4. Skating (all forms except figure)

M. Polio, infantile paralysis - formal muscle training under doctor's guidance; activities which motivate the student to do muscle-training exercises for the purpose of strengthening a part which is handicapping their success in a chosen sport.

1. Muscular dystrophy of an arm or arms

Athletic Games

1. Badminton
2. Softball
3. Basketball
4. Bowling
5. Box hockey
6. Cricket
7. Croquet
8. Games of low organization especially running
9. Golf
10. Handball doubles
11. Horseshoe pitching
12. Newcomb
13. Semi-organized games especially running
14. Soccer
15. Shuffleboard
16. Tennis (all forms)
17. Tether ball
18. Touch football
19. Volleyball

Combative Sports

1. Fencing
2. Hand wrestling
3. Indian wrestling
4. Wrestling

Dances

1. All types

Individual Athletics & Stunts

1. All track & field except pole vault
2. Fundamental sports skills
3. Tumbling stunts
   a. Forward & backward rolls
4. Self-testing
   a. Basketball & baseball throwing for distance & accuracy
   b. Football passing & kicking for distance & accuracy
   c. One arm medicine ball throwing

Relays

1. All running
2. Skating
3. Swimming
4. Skin the snake

Aquatics

1. All water games
2. Diving
3. Ordinary water stunts
4. Sailing
5. Swimming
   a. Breast
   b. Side

Miscellaneous Activities

1. Archery (light bow)
2. Bait & fly casting
3. Bicycling
4. Curling
5. Fishing
6. Hiking
7. Pistol shooting
8. Roller skating
9. Rope spinning

2. Muscular dystrophy of the leg

Athletic Games

1. Archery
2. Softball
3. Channel ball
4. Croquet
5. Golf
6. Horseshoe pitching
7. Newcomb
8. Shuffleboard
9. Six-hole basketball
10. Table tennis
11. Tether ball
12. Three deep

Combative Sports

1. Indian wrestle
2. Cock fight*
3. Dog fight*
4. Foot push*
5. Fowl fencing*
6. Going down*
7. One-sided wrestle*
8. Stick stand*

*See the Handbook of stunts for an explanation

Dances

1. Social dancing with one brace.

Individual Athletics & Stunts

1. All stunts on horizontal bar, rings, parallel bars & side horse
2. Basket shooting
3. Chinning
4. Elbow & forearm stands
5. Forward & backward rolls
6. Handstand to headstand
7. Push ups & floor dips
8. Rope climbing
9. Seal flap
10. Serves in volleyball & tennis

Relays

1. Dependent upon use of leg without brace
2. Basketball dribble
3. Dumbbell pushing relay
4. Skin the snake

Aquatics

1. Fundamental swimming skills
2. Simple water stunts

Miscellaneous Activities

1. Bait & fly casting
2. Bag punching
3. Bicycle riding
4. Fishing
5. Juggling
6. Pistol shooting
7. Rope spinning

N. Cerebral Palsy - activities dealing in relaxation and simple movements; exercises under specially trained individual; single response activities.

Athletic Games

1. Badminton doubles
2. Bowling
3. Clock golf
4. Croquet
5. Games of low organization not too exciting
   a. Circle ball
   b. Three deep
6. Handball only when coordination warrants it
7. Horseshoe pitching
8. Kick baseball
9. Newcomb
10. Semi-organized games
    a. Hit pin baseball
11. Shuffleboard
12. Soccer (half or fullback position)
13. Softball
14. Tennis (deck, paddle, & table)

Combative Sports

1. Fencing
2. Hand wrestling

Dances

1. Folk
2. Social

Individual Athletics & Stunts

1. Apparatus stunts on
   a. Horizontal bar
   b. Parallel bar
   c. Rings
   d. Side horse
2. Self-testing
   a. Basket shooting
   b. Floor dips
   c. Golf driving & putting
   d. Hop, step & jump
   e. Kicks for distance & accuracy
   f. Medicine ball throwing
   g. Pull ups
   h. Rope climbing
   i. Rope skipping
   j. Tennis & volleyball serves
   k. Throws for distance & accuracy
3. Track & field events
4. Tumbling stunts
   a. Forward & backward rolls
   b. Hand stand
   c. Head stand
   d. Snap ups

Relays

1. All fours
2. Centipede
3. Crab walk
4. Human wheelbarrow
5. Obstacle

Aquatics

1. Boating, canoeing, sailing and rowing
2. Diving
3. Endurance swimming
4. Non-competitive swimming
5. Stunts - floating, porpoise

Miscellaneous Activities

1. Archery
2. Bait & fly casting
3. Bicycling
4. Fishing
5. Hiking
6. Rope spinning

O. Spinal Cord Injuries - a corrective physical rehabilitation program under the physician's direction; single response activities are best.

Athletic Games

1. Bowling(table)
2. Croquet
3. Darts(dart baseball)
4. Golf(miniature)
5. Shuffleboard

Individual Athletics & Stunts

1. Basket shooting
2. Chinning

Aquatics

1. Boating
2. Fundamental swimming strokes for recreation

Miscellaneous Activities

1. Archery
2. Bait & fly casting
3. Bag punching
4. Billiards
5. Fishing
6. Juggling
7. Noc hockey
8. Pistol shooting
9. Pool
10. Rope climbing
11. Syringe hockey
12. Weight lifting

P. Respiratory & Nasal Disturbances - moderate & graduated exercise; individual activities.

Athletic Games

1. Badminton
2. Softball
3. Basketball (short periods)
4. Croquet
5. Games of low organization
6. Handball (doubles)
7. Horseshoe pitching
8. Newcomb
9. Semi-organized games
10. Shuffleboard
11. Soccer (short periods in halfback or fullback)
12. Squash
13. Tennis (all forms)
14. Touch football (short periods)
15. Volleyball

Combative Sports

1. Fencing
2. Hand wrestle

Dances

1. All types

Individual Athletics & Stunts

1. All track & field events
2. Apparatus stunts
3. Tumbling, if not sensitive to dust or hair

Relays

1. All types

Aquatics

1. Not advised

Miscellaneous Activities

1. All types

Q. Spinal Deviations - activities that develop body control, poise and balance.

1. Functional faulty body mechanics.

Athletic Games

1. Organized games - avoid fatigue
2. Semi-organized games

Combative Sports

1. All types

Dances

1. All types

Individual Athletics & Stunts

1. All individual athletic events
2. Apparatus
3. Field events
4. Sprints - distance running not recommended
5. Tumbling - stunts involving hands & arms

Relays

1. All types

Aquatics

1. All types with the exception of the crawl stroke

Miscellaneous Activities

1. All types; emphasis on activities which call for poise & balance

2. Structural kyphosis or lordosis

Athletic Games

1. Badminton
2. Baseball
3. Basketball (avoid fatigue)
4. Batball & German batball
5. Cricket
6. Captain ball
7. Fencing
8. Golf
9. Individual dodge ball
10. Lacrosse
11. Newcomb
12. Prisoner's base
13. Soccer
14. Speedball
15. Tennis (regular, deck & paddle)
16. Three deep
17. Touch football
18. Volleyball

Combative Sports

1. Fencing
2. Hand & Indian wrestling

Dances

1. All types

Individual Athletics & Stunts

1. All track events except distance running
2. All tumbling
   a. Back roll to head stand
   b. Cartwheel
3. Basket shooting
4. Rings, horizontal bar

Relays

1. Organized relays
   a. Skating
   b. Swimming
   c. Track
2. Games of low organization

Aquatics

1. Boating
2. Diving
3. Life saving
4. Swimming
   a. Back
   b. Breast

Miscellaneous Activities

1. Archery
2. Bait & fly casting
3. Bag punching
4. Figure skating
5. Fishing
6. Hiking
7. Juggling
8. Pistol shooting
9. Roller skating
10. Rope spinning

3. Structural Scoliosis

Athletic Games

1. Badminton
2. Baseball (hard & soft)
3. Basketball
4. Bowling
5. Cricket
6. Football
7. Games of low organization
8. Handball (four wall & single wall)
9. Hockey (field & ice)
10. Lacrosse
11. Water polo
12. Semi-organized games
13. Shuffleboard
14. Squash
15. Tennis (all forms)
16. Volleyball

Combative Sports

1. Fencing
2. Hand wrestling
3. Indian wrestling
4. Wrestling

Dances

1. All types

Individual Athletics & Stunts

1. All track events
2. All tumbling stunts
3. Apparatus stunts with emphasis on hanging & swinging
4. Self-testing
   a. Basketball, football, and baseball throw for distance & accuracy
   b. Floor dips
   c. Football & soccer kicking for distance & accuracy
   d. Medicine ball throwing for height & distance
   e. Pull ups
   f. Rope climb
   g. Rope skipping

Relays

1. All types

Aquatics

1. Diving
2. Games in water
3. Lifesaving
4. Stunts in water
5. Rowing, canoeing & sailing
6. Recreational swimming

Miscellaneous Activities

1. Archery
2. Bait & fly casting
3. Bag punching
4. Bicycling
5. Fishing
6. Hiking
7. Juggling
8. Pistol shooting
9. Rope spinning
10. Skating (ice & roller)

Considerable care must be exercised in the selection of measurement and other evaluative procedures for developmental, exceptional and adapted physical education. The program will be judged in no small part by the quality of these procedures. The use of valid and precise measuring instruments is an absolute requisite for gaining proper recognition and respect, while inaccurate and haphazard testing spells mediocrity, inaffectuality, and worse.

Selection Criteria to be Used

1. The examinations and tests should be directly related to the function of developmental and adapted physical education.

2. The evaluative process should reflect the particular emphasis of local developmental and adapted physical education programs.

3. Where local programs must be limited in scope, the selection of examination and tests may be based upon primary and supplementary functions.

4. Once the type of test needed is determined, the tests with the best scientific basis should be chosen.

Choice of tests should reflect:

1. Validity. A valid test is one that measures what it purports to measure.

2. Accuracy. The accuracy of tests refers to their repeatability.

3. Norms. Norms are points of reference to indicate levels of performance as compared with like groups.

4. Economy. Money costs and time required of testers and students.

Following are areas of evaluative criteria which should be employed when measuring the exceptional child.

1. Medical appraisals

2. Nutrition tests

3. Watzel grid

4. Meredith chart

5. Pryor's width-weight tables

6. Sheldon's age-heighth-weight tables

7. Somatotype

   Endomorphy
   Mesomorphy
   Ectomorphy

8. Strength tests
9. Circulatory, respiratory endurance
10. Kraus-Weber tests of minimum muscular fitness
11. Motor fitness tests
12. Cable tension strength tests
13. Flexibility and range of joint movement tests
14. Social, emotional, and physiological adjustment tests
15. Mental health analysis tests
16. SRA junior and youth inventory tests

It should be remembered that the purpose of evaluation is to improve teaching methods and provide self-esteem for the student rather than presenting the student with failure or defeat. Any evaluation method used is acceptable as long as the exceptional child grows in self-esteem and self-worth. Evaluation, then, is designed as an aid to help the exceptional child measure his or her progress.

B I B L I O G R A P H Y

The list of books which follows may prove useful and are available at the Ann Arbor Public Library, Administration Building, Ann Arbor Public Schools, and the School of Education, University of Michigan.

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